What is claimed is:

1. A method for alleviating chronic pain in a subject, the method comprising the steps of:

administering an effective amount of at least one inhibitor of neurotransmitter synthesis to a subject suffering from chronic pain at a site of inflammation; and

wherein the administration of the effective amount of at least one inhibitor of neurotransmitter synthesis results in a reduction in nociceptive responses at the site of inflammation without any resulting acute pain behavior.

2. The method of claim 1 wherein the at least one inhibitor of neurotransmitter synthesis is selected from the group consisting of a glutamine synthetase inhibitor, a glutamate dehydrogenase inhibitor, a pyruvate carboxylase inhibitor, a glutamine cycle inhibitor, a glial cell tricarboxylic acid cycle inhibitor, and combinations thereof.

3. The method of claim 2 wherein the at least one inhibitor of neurotransmitter synthesis is selected from the group consisting of phenyl acetic acid (PAA), phenylacetyl Coenzyme-A, phenylacetyl Co-A ester, oxamate, methionine-S-sulfoximine (MSO), phosphinothricin (PPT), 4-N-hydroxy-L-2,4-diaminobutyric

acid (NH-DABA), Delta-hydroxylysine, bromofuroate, Palmitoyl-Coenzyme-A (Palmitoyl-Co-A), orthovanadate, vanadyl sulphate, vanadyl acetylacetonate, glutarate, 2-oxoglutarate (α-ketoglutarate), estrogen, estrogen analogues, pyridine-2,6-dicarboxylic acid, fluoroacetate, fluorocitrate, and combinations and derivatives thereof.

4. The method of claim 1 wherein the subject is a human.

5. The method of claim 1 wherein the step of administering an effective amount of at least one inhibitor of neurotransmitter synthesis to a subject suffering from chronic pain at a site of inflammation is further defined as locally administering an effective amount of at least one inhibitor of neurotransmitter synthesis to a subject suffering from chronic pain at a site of inflammation.

6. The method of claim 1 wherein the step of administering an effective amount of at least one inhibitor of neurotransmitter synthesis to a subject suffering from chronic pain at a site of inflammation is further defined as injecting an effective amount of at least one inhibitor of neurotransmitter synthesis to a subject suffering from chronic pain at a site of inflammation.

7. The method of claim 1 wherein the step of administering an effective amount of at least one inhibitor of neurotransmitter synthesis to a subject suffering from chronic pain at a site of inflammation is further defined as topically applying an effective amount of at least one inhibitor of neurotransmitter synthesis to a subject suffering from chronic pain at a site of inflammation.

8. The method of claim 1 wherein the step of administering an effective amount of at least one inhibitor of neurotransmitter synthesis to a subject suffering from chronic pain at a site of inflammation is further defined as orally administering an effective amount of at least one inhibitor of neurotransmitter synthesis to a subject suffering from chronic pain at a site of inflammation.

9. The method of claim 8 wherein the effective amount of at least one inhibitor of neurotransmitter synthesis is in the form of a prodrug.

10. The method of claim 8 wherein the effective amount of at least one inhibitor of neurotransmitter synthesis demonstrates limited to substantially no penetration into the central nervous system.

11. The method of claim 1 wherein the administration of the effective amount of at least one inhibitor of neurotransmitter synthesis results in a reduction in nociceptive responses at the site of inflammation for at least two days without any resulting acute pain behavior.

12. A composition having sustained pain-relieving properties such that the composition may be administered to a subject to alleviate chronic pain, the composition comprising:

an effective amount of at least one inhibitor of neurotransmitter synthesis.

13. The composition of claim 12 wherein the at least one inhibitor of neurotransmitter synthesis is selected from the group consisting of a glutamine synthetase inhibitor, a glutamate dehydrogenase inhibitor, a pyruvate carboxylase inhibitor, a glutamine cycle inhibitor, a glial cell tricarboxylic acid cycle inhibitor, and combinations thereof.

14. The composition of claim 13 wherein the at least one inhibitor of neurotransmitter synthesis is selected from the group consisting of phenyl acetic acid (PAA), phenylacetyl Coenzyme-A, phenylacetyl Co-A ester, oxamate, methionine-S-sulfoximine (MSO), phosphinothricin (PPT), 4-N-hydroxy-L-2,4-

diaminobutyric acid (NH-DABA), Delta-hydroxylysine, bromofuroate, Palmitoyl-Coenzyme-A (Palmitoyl-Co-A), orthovanadate, vanadyl sulphate, vanadyl acetylacetonate, glutarate, 2-oxoglutarate (α-ketoglutarate), estrogen, estrogen analogues, pyridine-2,6-dicarboxylic acid, fluoroacetate, fluorocitrate, and combinations and derivatives thereof.

15. A composition having pain-relieving properties such that the composition can be administered to a subject to alleviate acute and chronic pain, the composition comprising:

an effective amount of at least one inhibitor of neurotransmitter synthesis; and

an effective amount of at least one compound having analgesic effects.

16. The composition of claim 15 wherein the at least one inhibitor of neurotransmitter synthesis is selected from the group consisting of a glutamine synthetase inhibitor, a glutamate dehydrogenase inhibitor, a pyruvate carboxylase inhibitor, a glutamine cycle inhibitor, a glial cell tricarboxylic acid cycle inhibitor, and combinations thereof.

17. The composition of claim 16 wherein the at least one inhibitor of neurotransmitter synthesis is selected from the group consisting of phenyl

acetic acid (PAA), phenylacetyl Coenzyme-A, phenylacetyl Co-A ester, oxamate, methionine-S-sulfoximine (MSO), phosphinothricin (PPT), 4-N-hydroxy-L-2,4-diaminobutyric acid (NH-DABA), Delta-hydroxylysine, bromofuroate, Palmitoyl-Coenzyme-A (Palmitoyl-Co-A), orthovanadate, vanadyl sulphate, vanadyl acetylacetonate, glutarate, 2-oxoglutarate (α-ketoglutarate), estrogen, estrogen analogues, pyridine-2,6-dicarboxylic acid, fluoroacetate, fluorocitrate, and combinations and derivatives thereof.

18. The composition of claim 15 wherein the compound having analgesic effects is a glutamate antagonist or an inhibitor of glutamate binding to glutamate receptors on peripheral sensory nerves.

19. A method for alleviating acute and chronic pain in a subject, the method comprising the steps of:

administering an effective amount of at least one inhibitor of neurotransmitter synthesis to a subject suffering from acute and chronic pain at a site of inflammation;

administering an effective amount of at least one compound having analgesic effects to the subject at the site of inflammation; and

wherein the administration of the effective amount of at least one inhibitor of neurotransmitter synthesis and the administration of

the effective amount of at least one compound having analgesic effects results in a substantially immediate reduction in at nociceptive responses at the site of inflammation without any resulting acute pain behavior.

20. The method of claim 19 wherein, in the step of administering an effective amount of at least one inhibitor of neurotransmitter synthesis, the at least one inhibitor of neurotransmitter synthesis is selected from the group consisting of a glutamine synthetase inhibitor, a glutamate dehydrogenase inhibitor, a pyruvate carboxylase inhibitor, a glutamine cycle inhibitor, a glial cell tricarboxylic acid cycle inhibitor, and combinations thereof.

21. The method of claim 20 wherein the at least one inhibitor of neurotransmitter synthesis is selected from the group consisting of phenyl acetic acid (PAA), phenylacetyl Coenzyme-A, phenylacetyl Co-A ester, oxamate, methionine-S-sulfoximine (MSO), phosphinothricin (PPT), 4-N-hydroxy-L-2,4-diaminobutyric acid (NH-DABA), Delta-hydroxylysine, bromofuroate, Palmitoyl-Coenzyme-A (Palmitoyl-Co-A), orthovanadate, vanadyl sulphate, vanadyl acetylacetonate, glutarate, 2-oxoglutarate (α-ketoglutarate), estrogen, estrogen analogues, pyridine-2,6-dicarboxylic acid, fluoroacetate, fluorocitrate, and combinations and derivatives thereof.

22. The method of claim 19 wherein, in the step of administering an effective amount of at least one compound having analgesic effects, the at least one compound having analgesic effects is a glutamate antagonist or an inhibitor of glutamate binding to glutamate receptors on peripheral sensory nerves.

23. The method of claim 19 wherein the administration of the effective amount of at least one inhibitor of neurotransmitter synthesis and the administration of the effective amount of at least one compound having analgesic effects results in a substantially immediate reduction in at nociceptive responses at the site of inflammation that last for a period of at least two days without any resulting acute pain behavior.